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Xerox Docket No. R/97005Q

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE HONORABLE BOARD OF PATENT APPEALS AND INTERFERENCES

#26
10/3

In re the Application of

Jean-Marc ANDREOLI et al.

On Appeal from Group: 2176

Application No.: 09/421,846

Examiner: W. Bashore

Filed: October 20, 1999

Docket No.: 109619

For: DOCUMENT CONSTRAINT DESCRIPTORS OBTAINED FROM USER SIGNALS
INDICATING ATTRIBUTE-VALUE RELATIONS

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REPLY BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In reply to the April 20, 2004 Examiner's Answer, please consider the following remarks:

REPLY BRIEF NOTED 03 9/19/2004

Examiner's Answer Argument a.

Page 9 of the Examiner's Answer states that Rubenstein '233 teaches a user constructing a query by inputting directly into box 250, or by dragging keyword phrases from pane 205, and dropping the phrases into pane 242 and page 10 of the Examiner's Answer states that the formulated query in box 250 in Figure 2 is a logical expression and the logical expression in box 250 is a form of a "document constraint descriptor". Thus, the Examiner is apparently asserting that the words/phrases in box 250 are (1) received user signals; (2) a logical relation and (3) a document constraint descriptor.

Applicants respectfully disagree. Applicants submit that representative claim 1 recites steps of 'receiving user signals indicating a set of attribute-value relations that can apply to documents', 'using the user signals to obtain, without user intervention, logical relations equivalent to the attribute value relations' and 'using the logical relations to obtain, without user intervention, a document constraint descriptor defining a set of one or more constraints equivalent to the logical relations'. If the 'received user signals indicating a set of attribute-value relations', 'logical relations equivalent to the attribute value relations' and 'document constraint descriptor' are always the same, Applicants would not recite each of the steps of representative claim 1.

Secondly, Applicants submit that Rubenstein '233 automatically generates a list of keyword phrases for a plurality of documents stored in a computer-readable medium. More particularly, in Rubenstein '233, each of the documents is first linguistically analyzed to identify keyword phrases therein and the identified keyword phrases are presented to the user (col. 2, lines 36-46). The box 250 shows the expression the user is forming using the drag and drop technique or by editing the previously constructed expression in the box 250 (col. 4, lines 48-55). Nowhere does Rubenstein disclose or suggest "using the logical relations to obtain, without requiring user intervention, a document constraint descriptor defining a set of one or more constraints equivalent to the logical relations" as recited in representative claim 1.

Examiner's Answer Argument b.

In response to Applicants' assertion that "Rubenstein '233, for example, never discloses any attribute value relationships, and the Final Office Action fails to indicate where any such attribute value relationship allegedly exist in Rubenstein '233, page 10 of the Examiner's Answer states that keywords of Rubenstien '233 and the relevance codes associated therewith reflect a (logical) expression/relation which is at least implicitly based on the associated importance code. Applicants respectfully disagree.

In Rubenstein '233, referential analyzers perform paragraph by paragraph parsing of documents using dictionary definitions of words to identify grammatically and definitionally significant phrases (i.e., keyword phrases) and grammatically significant phrases are identified on the bases of syntactic analysis, in which syntactically necessary, but conceptually significant terms (such as conjunctions, articles, etc.) are removed (col. 6, lines 42-49). Based on their grammatical and definitional significance relative to one another, the keyword phrases are assigned relevance codes (col. 6, lines 53-54). Further, Applicants submit that the relevance rank selection buttons 217 of Rubenstein '233 are provided so that the number of keyword phrases presented in the keyword pane 205 may be controlled by filtering the keyword phrases presented based on relevance code (col. 6, lines 60-64).

Page 12 of Applicants' specification states, for example, "An "attribute-value relation" is an association between an attribute and a set of values the attribute could have. If the attribute is a document attribute, the attribute-value relation could apply to documents." Representative claim 1 recites "receiving user signals indicating a set of attribute-value relations that can apply to documents". Applicants submit that the combination of a keyword phrase and a corresponding relevance code of Rubenstein '233 is not an attribute value relation as recited in representative claim 1 at least because the relevance code merely attempts to indicate the relevance of the keyword phrase relative to the other keyword phrases and does not provide a value or a set of values that the

attribute may have. For at least these reasons, nowhere does Rubenstein '233 disclose user signals indicating a set of attribute-value relations that can apply to documents.

Examiner's Answer Argument c.

Page 11 of the Examiner's Answer states that the formulated query in box 250 of Rubenstein '233 is a logical expression indicative of "logical relations" and the Boolean AND, OR, etc. defines the logical expression. As discussed above, Rubenstein '233 does not disclose user signals indicating a set of attribute-value relations that can apply to documents and thus, Rubenstein '233 also fails to disclose using the user signals to obtain, without requiring user intervention, logical relations equivalent to the attribute value relations, where the logical relations comprise at least one of a sort and a feature.

Examiner's Answer Argument d.

Page 11 of the Examiner's Answer maintains the definition of "a sort" in view of Wilson. Applicants respectfully submit that the term "sort" is positively defined in the specification and that they are their own lexicographers in this regard. For example, page 19, line 22 - page 20, line 1 of the specification states "A sort is a unary relation, expressing a property of a single entity."

Nowhere does Wilson or Rubenstein '233 disclose using the user signals to obtain, without requiring user intervention, logical relations equivalent to the attribute value relations, where the logical relations comprise at least one of a sort and a feature, as recited in representative claim 1.

Examiner's Answer Argument e.

Page 12 of the Examiner's Answer states that the Examiner applies Wilson to Rubenstein '233 to provide Rubenstein '233 the benefit of automatic modification of relations to match user changes, which releases the burden of modification from the user. Applicants respectfully disagree.

Applicants submit that it is important to consider what action is performed without requiring user intervention and it is not sufficient to apply a reference which may automate a step in a process. Representative claim 1 recites "using the user signals to obtain, without requiring user

intervention, logical relations equivalent to the attribute value relations, the logical relations comprising at least one of a sort and a feature; and using the logical relations to obtain, without requiring user intervention, a document constraint descriptor defining a set of one or more constraints equivalent to the logical relations."

Examiner's Answer Argument f.

Page 12 of the Examiner's Answer states that the "examiner interprets claims 15 and 16 as searching for a "solution", via returning target documents matching a user query, said documents including an item reference". Applicants respectfully submit that claim 15 recites "use the document constraint descriptor to solve the set of one or more constraints to obtain a solution, and use the solution to obtain one or more document references, each document reference indicating a document that satisfies the set of one or more constraints." As discussed above, Applicants submit that Rubenstein fails to disclose a processing operating to use the user signals to obtain, without requiring user intervention, logical relations equivalent to the attribute-value relations, the logical relations comprising at least one of a sort and a feature, and use the logical relations to obtain, without requiring user intervention, a document constraint descriptor defining a set of one or more constraints equivalent to the logical relations" as recited in claim 13, from which claims 15 and 16 depend. Thus, if Rubenstein '233 fails to disclose obtaining a document constraint descriptor, as recited in claim 13, Rubenstein '233 also fails to disclose using the document constraint descriptor to solve the set of one or more constraints to obtain a solution, and to use the solution to obtain one or more document references, each document reference indicating a document that satisfies the set of one or more constraints, as recited in claim 15.

Examiner's Answer Argument g.

In response to Applicants' assertion that "the final Office Action completely fails to establish a motivation to combine these references", page 13 of the Examiner's Answer asserts that scanning IRS forms, as disclosed by Karnik, provides Rubenstein '233 the capability of querying data from the

inputted forms for statistical purposes. Applicants respectfully disagree.

Applicants submit that in order to modify Rubenstein '233, one would have to disregard the main function of Rubenstein '233, which is to identify one of a plurality of documents and presenting the identified document to the user in the form of an abstract (Abstract). Further, Rubenstein '233 is not restricted to querying only certain portions of a form, and there would have been no motivation for one of ordinary skill in the art to restrict Rubenstein '233.

Applicants respectfully submit that one of ordinary skill in the art at the time of the invention would not have been motivated to combine the teachings of Karnik and Rubinstein '233.

Examiner's Answer Argument h.

In response to Applicants' assertion that the Final Office Action does not even address the positively recited features of claim 9, page 13 of the Examiner's Answer states that the "examiner interprets claim 9 (limitation G) to mean: obtaining a solution, and returning the target documents matching the solution."

As discussed above, Applicants submit that Rubenstein fails to disclose using the user signals to obtain, without requiring user interview, logical relations equivalent to the attribute-value relations, the logical relations comprising at least one of a sort and a feature, and using the logical relations to obtain, without requiring user intervention, a document constraint descriptor defining a set of one or more constraints equivalent to the logical relations" as recited in claim 1, from which claim 9 depends. Thus, if Rubenstein '233 fails to disclose obtaining a document constraint descriptor, as recited in claim 1, Rubenstein '233 also fails to disclose solving the set of one or more constraints to obtain a solution, and to use the solution to obtain one or more document references, each document reference indicating a document that satisfies the set of one or more constraints, as recited in claim 9.

Conclusion

In view of the foregoing, Applicants respectfully submit that the final rejections of record are improper, and the Honorable Board is requested to reverse those rejections and return the application to the Examiner to pass this case to issue.

Respectfully submitted,



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